



## Key Customer - ArcelorMittal

### Sustainable production

ArcelorMittal is the world's leading steel and mining company with a presence in 60 countries. It has an industrial footprint in 19 countries. ArcelorMittal is the leader in all major global steel markets including automotive, construction, household appliances and packaging with leading research and development and technology, sizeable captive supplies of raw materials, and outstanding distribution networks. The company has some 232 000 employees.

ArcelorMittal has steelmaking operations on four continents including developed and emerging markets. ArcelorMittal is a leader in metal markets in North and South America, Western and Eastern Europe, CIS, countries and Africa. Mining is one of the pillars of ArcelorMittal's growth strategy. ArcelorMittal currently has mining operations in such countries as Algeria, Bosnia and Herzegovina, Brazil, Canada, Kazakhstan, Liberia, Mexico, Russia, Ukraine and the US.

ArcelorMittal is at the forefront of steel production research and development using their researchers' expertise in steel to develop cleaner processes and greener products, to make steel production more sustainable and help reduce environmental impact. The goal of the company is to produce safe, sustainable steel.

### Energy efficiency with low emissions

KPA Unicon has delivered two boiler plants for ArcelorMittal, to Kazakhstan and South Africa. Both plants are a good example of utilization of by-products from the steelmaking process. The plants are fueled with blast furnace and coke oven gas. In steam boiler plant in South Africa natural gas can be also used as a fuel. At ArcelorMittal's steel mills in Kazakhstan and South Africa part of blast furnace gas was wasted when it was burned and exhausted into the atmosphere, which had a negative impact on the environment. By recycling waste gases KPA Unicon's boiler plants produce steam for process needs significantly reducing the amount of emissions and saving fossil energy.

### PlantSys

Both boiler plants are equipped with PlantSys operation system for local and remote control. PlantSys collects data from the process equipment and makes an easily outlined and controlled entity of the data. PlantSys also enables a reliable remote access to the plant, optimizes the parameters and predicts the future service and maintenance needs. The level of automation of KPA Unicon's supplied equipment provides safe operation of the boiler plants.

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## Selected references



## Steam boiler plant in Kazakhstan

**CUSTOMER:** JSC ArcelorMittal Temirtau, Kazakhstan

The integrated steel plant in Temirtau is the largest steel producer in Kazakhstan and central Asia. The plant has a coke-and-chemical plant, blast furnaces and sinter plant, steel production and rolling mills.

### BASIC DATA

Plant type:	UNICON-SF150
Boiler type:	fire tube
Total capacity:	5x30 t/h
Operation pressure:	14 bar
Steam temperature:	230 °C
Burners:	2 pcs/boiler
Fuel:	blast furnace gas, coke oven gas
Building:	new building with steel frame and sandwich type panel walls
Plant operation system:	<b>PlantSys</b> <sup>®</sup> ( <a href="http://www.kpaunicon.com/en/plantsys">http://www.kpaunicon.com/en/plantsys</a> )
Use:	the plant generates steam for process needs

### PROJECT EXECUTION

The boiler plant was delivered on turnkey basis, the official start-up of the boiler plant was performed in December 2012. Construction and installation works were conducted by KPA Unicon's local subcontract organization. Installation supervision and commissioning were done by KPA Unicon. Additionally KPA Unicon and ArcelorMittal Temirtau signed a contract for spare parts delivery.

"The choice of steam boiler plant design, manufacturing and delivery company was done on tender basis. KPA Unicon was the only company to offer the whole range of works in the shortest possible time and with the best price. Our cooperation experience with KPA Unicon can be described only in a positive way. KPA Unicon has proven itself to be committed partner in all phases of works", says Project and Strategy Manager of ArcelorMittal Temirtau Mr. Serdykov.

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## Steam boiler plant in South Africa

**CUSTOMER:** JSC ArcelorMittal South Africa, Vanderbijlpark, Gauteng

ArcelorMittal South Africa supplies over 60 % of the steel used in the country and is Africa's largest steel producer.

### BASIC DATA

Plant type:	UNICON-MST50
Boiler type:	water tube
Total capacity:	2 x 25 t/h
Operation pressure:	66 bar
Steam temperature:	495 °C
Burners:	1 pcs/boiler
Fuel:	blast furnace gas, coke oven gas, natural gas
Plant operation system:	<b>PlantSys</b> ® ( <a href="http://www.kpaunicon.com/en/plantsys">http://www.kpaunicon.com/en/plantsys</a> )
Use:	the plant produces steam for customer's existing turbine which generates electricity for internal consumption

### PROJECT EXECUTION

The contract was signed in June 2015. The installation works were started in January 2016. All main equipment was delivered on site in May 2016. The turnkey delivery includes all process equipment, transportation to South Africa, all installation works, commissioning and training of the operational personnel. The boiler plant is based on a modularized structure which allows high level of prefabrication, fast installation at the site and premium quality. KPA Unicon also arranged the financing of the project.

"This solution represents the advanced power boiler solutions developed by KPA Unicon for efficient and sustainable electricity production. This project is part of our growth plan regarding power solutions and we are also looking forward to expand our market coverage in order to have long-term presence in new areas, like in this case, South Africa", says Sales Director, Teemu Koskela from KPA Unicon.